

Application No.: 09/540,289Docket No.: H2041,0047**REMARKS/ARGUMENT**

Claims 1 to 4 are pending. Claims 1, 2 and 4 have been rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,175,550 to Van Nee et al. Claim 3 has been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. No amendment is made in this Response. Reconsideration of the subject application in view of the following remarks is respectfully requested.

In paragraph 5 of the Office Action, claim 3 has been objected to for informalities but indicated as allowable if rewritten in independent form including all limitations of the base and any intervening claims. Applicants thank the Examiner for kindly indicating the allowability of claim 3, but defer rewriting claim 3 until final resolution of the rejected claims.

In paragraph 4 of the Office Action, claims 1, 2 and 4 have been rejected under § 103 over Van Nee et al. Applicant respectfully traverses this rejection.

Independent claim 1 is directed to a multi-rate transmission apparatus and requires at least that "a coding ratio is varied in accordance with an input modulation operation mode to allow a transmission operation with a single input clock signal for any input modulation mode."

The Office Action asserted that:

Van Nee also teaches doubling the number of bits per symbol per carrier (e.g., different carrier modulation scheme) to double the transmission rate. In view of that, by doubling the number of bits per symbol per carrier, one of ordinary skill in the art at the time of the invention would have recognized

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that Van Nee keeps the symbol duration T_s constant. In this embodiment, the clock 17 as shown in figure 1 is constant.

Applicant respectfully disagrees with the above assumption that "the clock 17 as shown in figure 1 is constant." Contrary to the assumption, figure 1, as well as figure 4, of Van Nee shows a "dynamic rate control" being input into clock 17 (or clock 49 in figure 4). Accordingly, one skilled in the art is more likely to perceive clock 17 (or 49) as being variable subjected to the "dynamic rate control."

Moreover, even if the above assertions in the Office Action are presumed to be true, which applicant does not admit, the Office Action still does not show where in Van Nee it discloses "*a coding ratio is varied in accordance with an input modulation operation mode to allow a transmission operation with a single input clock signal for any input modulation mode*" as required in independent claim 1. While Van Nee generally discloses that the coding rate is among one of the several operating parameters that can be varied to scale operating characteristics including transmission rate, Van Nee does not disclose that the coding rate is varied in the same manner as required by the claimed invention.

Moreover, the Office Action acknowledged that, in the embodiment disclosed in column 4, lines 55 - 67 of Van Nee, "the clock is changed on the basis of a change in transmission rate." Therefore, Van Nee in fact teaches away from using "a single input clock signal for any input modulation mode" as required in independent claim 1. Accordingly, the claimed invention is not obvious over Van Nee.


Therefore, independent claim 1 and its dependent claims 2 and 4 patentably distinguish over Van Nee. The subject rejection is thus overcome.

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In view of the foregoing remarks, applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Respectfully submitted,

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